

Title (en)  
TREAD RUBBER COMPOSITION AND PNEUMATIC TIRE

Title (de)  
REIFENPROFILKAUTSCHUKZUSAMMENSETZUNG UND LUFTREIFEN

Title (fr)  
COMPOSITION DE GOMME DE BANDE DE ROULEMENT ET BANDAGE PNEUMATIQUE

Publication  
**EP 2857446 A4 20151216 (EN)**

Application  
**EP 13801074 A 20130607**

Priority  
• JP 2012131221 A 20120608  
• JP 2012137165 A 20120618  
• JP 2012137167 A 20120618  
• JP 2013065777 W 20130607

Abstract (en)  
[origin: EP2857446A1] Provided are a tread rubber composition that can achieve a balanced improvement in fuel economy, wet-grip performance, and abrasion resistance, and a pneumatic tire including the composition. The tread rubber composition includes: a rubber component; silica; and a silane-coupling agent containing a mercapto group, the rubber component including per 100% by mass thereof 5% by mass or more of a conjugated diene polymer (A), the polymer (A) including a monomer unit derived from a conjugated diene, a monomer unit derived from a compound of formula (1), and a monomer unit derived from a compound of formula (2), at least one end of the copolymer (A) being modified by the following compound (G) or an alkoxy silane compound, the composition including 5-150 parts by mass of the silica per 100 parts by mass of the rubber component, Compound (G): at least one compound selected from the group consisting of compounds containing an optionally-substituted amino group and a carbonyl group and compounds containing an optionally-substituted amino group and a thiocarbonyl group, #####V 1 -S 1 #####(1) #####V 2 -A 2 #####(2) wherein V 1 and V 2 each represent a hydrocarbyl group containing a polymerizable carbon-carbon double bond; S 1 represents a substituted silyl group, and A 2 represents a substituted amino group or a nitrogen-containing heterocyclic group.

IPC 8 full level  
**C08L 9/00** (2006.01); **B60C 1/00** (2006.01); **C08C 19/44** (2006.01); **C08F 236/14** (2006.01); **C08F 297/04** (2006.01); **C08K 3/36** (2006.01); **C08K 5/548** (2006.01); **C08L 47/00** (2006.01)

CPC (source: CN EP US)  
**B60C 1/00** (2013.01 - US); **B60C 1/0016** (2013.01 - CN EP US); **C08F 236/06** (2013.01 - CN EP US); **C08F 236/10** (2013.01 - EP US); **C08F 236/14** (2013.01 - US); **C08K 3/04** (2013.01 - EP US); **C08K 3/06** (2013.01 - EP US); **C08K 3/22** (2013.01 - EP US); **C08K 3/36** (2013.01 - EP US); **C08K 5/09** (2013.01 - EP US); **C08K 5/47** (2013.01 - EP US); **C08K 5/548** (2013.01 - EP US); **C08L 7/00** (2013.01 - EP US); **C08L 9/00** (2013.01 - EP US); **C08L 9/06** (2013.01 - CN); **C08L 15/00** (2013.01 - EP US); **C08L 43/04** (2013.01 - US); **C08L 47/00** (2013.01 - US); **C08L 83/00** (2013.01 - EP US); **C08L 91/00** (2013.01 - EP US); **C08L 91/06** (2013.01 - EP US); **C08C 19/34** (2013.01 - EP US); **C08C 19/44** (2013.01 - EP US); **C08L 2205/03** (2013.01 - US); **C08L 2205/035** (2013.01 - CN); **Y02T 10/86** (2013.01 - US)

Citation (search report)  
• No further relevant documents disclosed  
• See references of WO 2013183743A1

Cited by  
EP3498492A1; WO2019030059A1; WO2020048930A1; WO2019030064A1; WO2020152332A1; US11312843B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2857446 A1 20150408**; **EP 2857446 A4 20151216**; **EP 2857446 B1 20180307**; CN 104334629 A 20150204; CN 104334629 B 20160824; US 2015099823 A1 20150409; US 9790359 B2 20171017; WO 2013183743 A1 20131212

DOCDB simple family (application)  
**EP 13801074 A 20130607**; CN 201380027201 A 20130607; JP 2013065777 W 20130607; US 201314400251 A 20130607